

### 013 What is Claimed is:

- 1, Rearing Fly Larvae (maggot) and fly pupa in space as space food sources for animals and human
- 2, Rearing maggot in space as defined in claim 1, the human / animals waste ( manure) and inedible crop plants in space be fully recycled to regenerate nourishing maggot biomass for. animal feedstuff
- 3, Rearing maggot as defined in claim 1, maggot can be carrier of some special ingredients by feeding maggot with relevant ingredients that crew need, such as vitamins, minerals, electrolytes and antibiotic etc., so the rearing animals will be the carrier for these relevant ingredients too by feeding with those maggot, the crew will get these relevant ingredients from these animal food.
- 4, Rearing maggot as space food source for animal as defined in claim 1, the enough fly eggs, animal eggs, oosperm and placenta be all brought from earth, they were frozen in liquid nitrogen as the food source, and can be warmed and hatched for rearing in space, thus achieve safe and sufficient food source and ingredient storage in long term mission. The animals could be reproduced by themselves in the space too. The fly rearing and reproduction could be a standby way for sudden case of fly eggs lost in long term mission.
- 5, Rearing maggot in space as defined in claim 1, when rearing maggot 3~3.5 days (or rearing after 4 days to become pupa), the living maggot (or pupa) could be feedstuff for rearing animals directly, or processing to be maggot powder ( or pupa powder) for frozen storage as animals feedstuff .
- 6, Rearing maggot in space as defined in claim 1, the maggot will be feedstuff for poultry, aquatic, amphibian, and livestock, these animal bodies and their eggs will be the nourishing food for human in space.
- 7, Rearing maggot in space as defined in claim 1, the residues after rearing maggot is odorless and still rich of nutrients, it can be high grade fertilizer for crop plants, the CO<sub>2</sub> from maggot rearing, could supply to crop plants for growth requirement
- 8, Rearing maggot as defined in claim 1, for those food crisis in space or on the earth, such as disaster in polar adventure, on the sea or in war, rearing maggot with self-manure could be a way of self-sufficient food production for life saving.
- 9, Rearing maggot and fly pupa as defined in claim 1, the maggot powder, pupa powder and the rearing animals feeding by maggot and pupa, can be manufactured as healthy food for resisting radiation and improving immune ability, not only for human in space, also for human on the earth.. The crop or animal internal organs could be feedstuff for rearing maggot on the earth, some herbal medicine and other ingredients with special function can be added in those feedstuff, or in maggot (pupa) powder for increasing effect. The daily dose for adult is 0.3~1.0 gram of pure maggot (pupa) powder